fibrinogen from blood plasma by fractional precipitation with ammonium sulphate, and has studied the characters of the soluble fibrino-globulin of Hammarsten, which is present in solution after the fibrinogen solution has been clotted or coagulated by heat. He finds that fibrinogen is not filtered by pressure through a Chamberlain filter, while the other proteids of plasma, including fibrinoglobulin, are driven through. He has also determined the heat coagulation temperature of fibrino-globulin.

Dr. Schwalbe has studied the clotting of freshly drawn blood, the blood being suspended in microscopical sections of elder-pith and protected from drying or contact with the cover glass. He concludes that blood platelets arise by the breaking down of red corpuscles, and that agents, such as calcium salts, which promote clotting do so by accelerating the breaking down of the red corpuscles. The original observations are scarcely of sufficient importance to warrant their publication in the form of a separate monograph.

A Manual of Elementary Science. A course of work in Physics, Chemistry and Astronomy, for Queen's scholarship candidates. By R. A. Gregory, F.R.A.S., and A. T. Simmons, B.Sc. Pp. viii+429. (London: Macmillan and Co., Ltd, 1901.) Price 3*s*. 6d.

OF the three parts into which this book is divided, those dealing with physics and chemistry are along familiar lines, but it may be stated that they are treated with the thoroughness and attention to practical details which the authors have accustomed us to expect. It is to the third part that teachers will turn with the greatest interest, for the reason that an effort is made to extend laboratory methods in the teaching of astronomy. Hitherto, with the possible exception of two American books, there has been no guide to this class of work suitable for elementary students who can only give a comparatively small amount of time to the subject. The practical exercises described comprise the illustration of astronomical phenomena by the use of simple apparatus; suggestions for observations of the heavenly bodies themselves, including measurements of altitude, &c., with home-made instruments; the graphical representation of the paths of the sun, moon and planets with the aid of an almanac; and easy numerical exercises. Those who have endeavoured to teach chiefly by the observation of the heavens will appreciate the provision made for instructive work when outdoor observation is not possible or convenient. The course laid down is certainly a step in the right direction, but it would be too much to say that it could not be improved. The use of the globes, for instance, might have been introduced with advantage.

It may be noted that Achernar, by some slip, has been wrongly included in the list of bright stars visible in England (p. 328).

The book throughout is admirably illustrated, many of the diagrams being original. A number of useful exercises are appended to each chapter.

The Mind of the Century. By various authors. Pp. 141. (London: T. Fisher Unwin, no date.) 2*s*.

THE essays in this volume are characteristic aspects of progress during the nineteenth century, seen from sixteen different points of view; they originally appeared in the *Daily Chronicle*, and it may perhaps be doubted whether any useful purpose is served by reprinting them. A glance at the lines of intellectual development may be sufficient for a daily newspaper, but it is scarcely accurate to describe a very general view as a representation of "The Mind of the Century." It will be sufficient to say that Prof. Tilden's article on chemistry occupies five pages, and he would probably be the first to disclaim any desire to have it regarded as more than a very slight sketch of a few lines of progress. Dr. H. J. Campbell writes on medicine, Mr. Edward Clodd on natural science (in which he includes astronomy), and Mr. W. A. Price on applied science, the whole of the articles on scientific subjects occupying thirty-three pages. To what extent the minds of men of science—both pure and applied—can be faithfully reflected within these limits we leave our readers to judge. The book has no index.

Morison's Chronicle of the Year's News of 1900. Compiled by G. Eyre-Todd. Pp. 446. (Glasgow: Morison Brothers, 1901.) 3*s*. 6*d*. net.

THIS is a diary of events and news of the year 1900, and it may be taken as a convenient index to the subjects which occupied public attention in the newspaper press during that year. It is in no sense a record of scientific thought and work, and the compiler has apparently made no attempt to form an accurate estimate of the relative standing of learned societies, or to apportion space according to the value of their proceedings.

In the index, under societies, we notice the Royal Society of Edinburgh (the reference being to a single meeting in 1900), but not the Royal Society of London; a meeting of the Scottish Meteorological Society is recorded, but none of the Royal Meteorological Society; the Society of Chemical Industry appears, but not the Chemical Society, or the Physical, or the Astronomical, or the Linnean, Zoological and many others. So far as science is concerned, therefore, a reader of the diary would prevent himself from being disappointed if he assumed that the volume took no account of the scientific news of 1900. We must, however, be charitable, for, after all, the news and events recorded in the volume are, to the general public, of more interest and value than many contributions to natural knowledge.

Imitation, or the Mimetic Force in Nature and Human Nature. By Richard Steel. Pp. xii+197. (London: Simpkin, Marshall and Co., Ltd., 1900.)

THE canon of affirmative reasoning, which may be said to form the text of this book, is expressed by the author as follows:—"That which is true of a thing is probably true of its like; the degree of probability depending upon the extent and thoroughness of the resemblance." This principle is applied to the reasoning employed in connection with such subjects as habit and instinct, psychology, physics and biology, and other branches of intellectual inquiry in the natural and spiritual worlds. It is the expression of the theory of imitation, which the author propounds "as a fundamental influence in human affairs and in the natural universe generally." Many general facts of natural history lend themselves easily to this idea, and use is made of them. How the author does this, and shows that even wave motion is "essentially mimetic or imitative," can be better read than described.

In Nature's Workshop. By Grant Allen. With 100 illustrations by Frederick Enock. Pp. 240. (London: George Newnes, Ltd., 1901.) Price 3*s*. 6*d*.

IN reading this book one cannot fail to notice a considerable resemblance between Mr. Grant Allen's manner of treating his subject and that adopted by the late Dr. Taylor in his "Sagacity and Morality of Plants." But while the latter work consisted only of examples taken from the vegetable kingdom, here the animal kingdom, and especially the insect world, receives a large share of attention. Thus there are chapters on "sextons and scavengers," dealing with burying beetles; "false pretences" and "masquerades and disguises," dealing with warning colours, mimicry and such matters; "animal and vegetable hedgehogs," dealing with spiny fishes, insects, cactuses, lizards and beetles; "plants that go to sleep." The book should prove delightful reading to young people and others who can take an interest in natural history treated in an unscientific and popular

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way, and Mr. Enock's skill as an artist in portraying all sorts and conditions of animal and plant life greatly add to its charm.

Elementary Organic Analysis. By F. G. Benedict, Ph.D. Pp. vi+86. (Easton, Pa.: The Chemical Publishing Co., 1900.) Price 1 dollar.

DR. BENEDICT describes processes for the determination of carbon and hydrogen in organic analysis. His manual is distinguished by completeness of detail concerning the setting up and manipulation of the analytical apparatus, and the treatment necessary for various classes of compounds. The book should be of service in directing students how to carry out organic combustions satisfactorily.

Elevation and Stadic Tables. By A. P. Davis. Pp. 42. (New York: J. Wiley and Sons. London: Chapman and Hall, 1901.)

HYDRAULIC tables showing velocities for various channels and slopes are given in this volume, as well as tables "for obtaining differences of altitude for all angles and distances, horizontal distances in stadic work, &c., with all necessary corrections." The book has been prepared and published because there is a need for such a handy manual in the field work of surveying and in practical problems connected with canal construction. As such its usefulness is assured.

LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. *No notice is taken of anonymous communications.]*

The Recent "Blood Rains."

THE quantity of dust carried over to Europe by winds from the African Continent during the present month seems to have been unusually great, for traces of the "blood-rain" are said to have been noticed as far north as Hamburg and Schleswig-Holstein, while, in most cases, such phenomena are confined to the countries immediately bordering the Mediterranean. My colleague, Prof. A. W. Rücker, who has been staying at Taormina, in Sicily, has forwarded to me some very interesting observations which he has made on the subject. Writing on March 12, he says: "We have had a rather curious phenomenon here. The sirocco was blowing, and the hills were wrapt in mist, but the fog assumed a yellow hue, and the sun, which at times could be seen through it, was a bright blue. This was caused and accompanied by a copious fall of red dust. Some which I shook off my hat was quite dry, and on looking at it through a low-power lens all the granules seemed to be spherical, except a very few grains of what looked like quartz. Of course, the question was raised whether Etna was ejecting something which corresponded to the Krakatoa dust, but this was negatived by the fact that the Italian papers state that the dust fell also at Naples and Palermo in such quantity that the streets looked red and the people were frightened. I scraped some off a marble table which I send you."

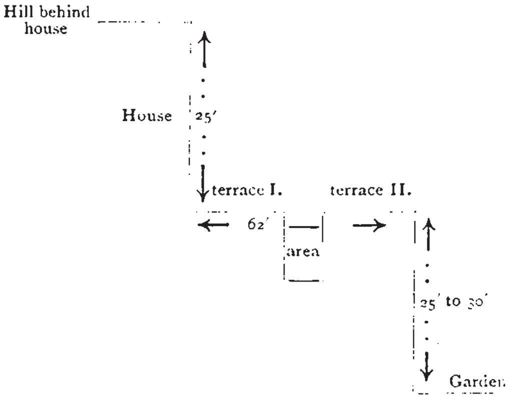
Under the microscope this dust is seen to be mainly composed of inorganic particles, chips of quartz in small quantities being mingled with minute plates of various micaceous and other minerals. There is also a fair admixture of frustules of freshwater diatomaceæ, entire and in fragments. The number and variety of these diatomaceæ does not appear to be so striking as in some of the celebrated cases described by Ehrenberg, the organisms from which were figured by him in his "Passat Staub und Blut Regen" (1847). There are, however, a very considerable number of species represented in these recent falls.

Vague statements have appeared in some of the newspapers as to the number of millions of tons of dust which, during the present month, have fallen over Italy. The data upon which these statements have been made have not been given, so that the following memorandum on the subject, drawn up by Prof. Rücker, cannot fail to be of interest to readers of NATURE.

Royal College of Science. J. W. JUDD.

March 20, 1901. *Taormina, Sicily.*

"At 7.30 this morning the sky was copper-coloured, and it was evident that another fall of dust was taking place. The sirocco had been blowing for two days, and it was raining slightly.



The general outline of the hotel is as shown. The two terraces are connected by a bridge. On the terraces were several rectangular marble tables, and it occurred to me that it might be interesting to find the amount of dust on some of them.

It is, of course, possible that the rain may have washed some of the dust off them, but I looked at the terrace when dry and saw no signs of a specially great aggregation of dust under the tables.

The aspect of the terrace is about S.W., so that the house did not shelter the tables, as the wind was blowing towards it; but, of course, eddies may have had an effect.

The sky ceased to be copper-coloured about 8 or 8.15, and I have no reason to suppose that any large quantity of dust fell while the experiments were being made.

Table I. Was on the western half of the inner terrace I., about 13′ from the house. It measured 24½″ × 46″ = 1127 square inches. The mingled dust and water were scraped off with the edge of a sheet of paper into the cover of a biscuit box, then dried over a spiritine (alcohol) flame. The dust adhered rather strongly to the box, and had to be scraped off with a knife, which removed some shavings of the tinning.

Collection made at 9 a.m.

Table II. Further east, on terrace I., near a point where the level of the house fell to about 17′. Distance from house, 13′. Dimension, 22¼″ × 40½″, or, say, 900 square inches. Collected as before but into two plates, one earthenware, and the other enamelled iron. The dust had to be scraped off, but I do not think the knife removed anything from the plates.

Collection made at 10.15 a.m.

Table III. This was the best experiment. The table was on the outer terrace, 58′ from the house, and close to the edge of the terrace. Area, 24¼″ × 46½″ = 1127·5 square inches. The scrapers used were rags of clean muslin, which were afterwards washed in water to get as much dust as possible out of them, and the quantity so obtained (which was small) was added to the rest. The dust and water were put in a clean bottle and preserved. No drying was done in this case.

Collection made 10.45.

In the afternoon I borrowed a balance from a photographer. The smallest weight was a gram, but the balance would turn to less, and I made smaller weights by cutting a piece of stout paper to such a length that it weighed a gram, measured its length and cut off measured lengths from it. I weighed in both pans and found there was no important difference. The whole experiment was rough, but the amounts deposited on the two tables appear to have been so different that great accuracy in weighing is not important.

Table I. Weight of dust, 1·13 grams.
Area, 1127 square inches, or, say,
0·0010 gram per square inch.
Table II. Weight of dust, 1·54 grams.
Area, 900 square inches, or, say,
0·0017 gram per square inch.
Table III. Preserved wet, and therefore not weighed.

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